

FLIGHT

First Aero Weekly in the World.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.

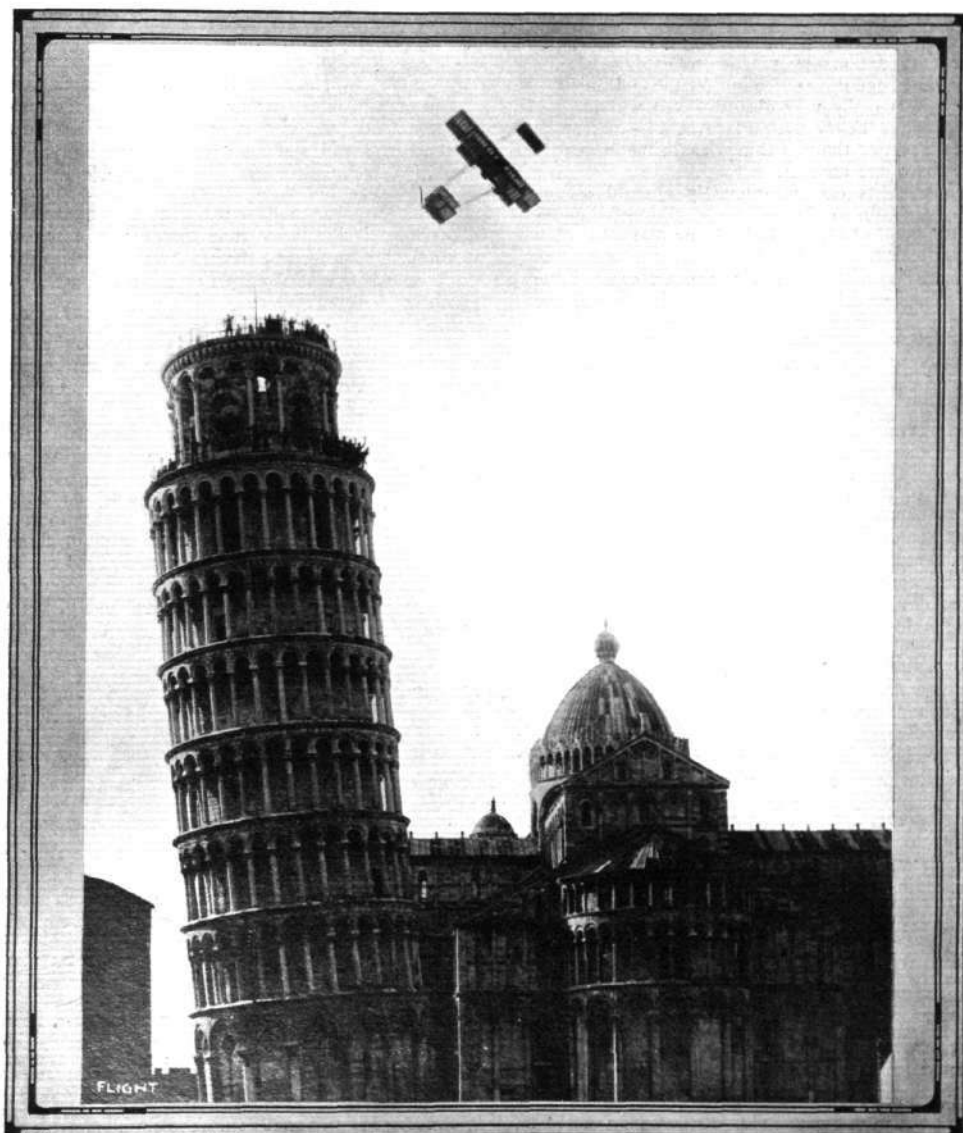
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FLYING ROUND THE LEANING TOWER OF PISA.—Mario Cobiainchi circling the famous tower recently. Note the cheering spectators on the two galleries at the top of the tower.

THE BANEFULNESS OF THE EXTREMIST.

ADMITTED that it takes all sorts of people to make a world, and also that there usually are two tenable sides to every question, it is still to be deplored that the extremists should be those most prone to parade their own distorted views before the general public. In the aeronautical arena there is not much room as yet for the extremist—unless indeed are taken into account those outside enemies to all mechanical advancement that are ever to be found yapping around the heels of that good steed Enterprise. But for all that there is one particularly insidious Will-o'-the-wisp admirably suited to the unsettling tendencies of the extremist, and that is the imaginary conflict that a certain large class of the species extremist is pleased to deem inherent between those two great twin aids to all development—Theory and Practice. Considering how valueless all the theory in the world would be but for its permanent foundation upon practice, as also how restricted would be the scope of practice but for the continuous aid of theory, it is really very absurd—even without going into the matter below the surface at all—that anyone should ever talk of the two things as being in any way antagonistic to one another.

Such extremists do unfortunately abound amongst men honestly keen to advance the coming of the era of flight. Some display their lack of any due sense of the proportion of things by decrying the existing aeroplanes, and by refusing to see even temporary sense in any mechanical contrivance for "riding the wind," unless it is—as the case may be—a direct-lifting helicopter of sorts, or has flapping wings, or can soar aloft without other energy than that derivable from the "winds of heaven," according to their special fancy. But of such we do not intend to speak more fully on the present occasion, particularly as they do no great harm, and as it is chiefly their endeavour to despise their conspicuously-lacking basic theoretical knowledge that renders them so premature in their demands of the moment. Others take an equally low view of the capabilities conferred by practical experience in the workshop, and by actual experiment with what may possibly be crudely designed mechanical contraptions. And it is they who are the real offenders, whether or not they aggravate the offence by being able to lay claim to some technical training calculated to give an air of authority to whatever opinions they may express. Their offence is that they seem to deem it their duty to detract from the credit due to the real workers of the day who are designing, building, and flying an ever-improving type of machine, and seek to suggest that these builders and designers are mere amateurs playing with a task far away above their mental powers, while these flying men are nothing more than reckless gymnasts or sordid pot-hunters.

From this standpoint there is something almost pitiable about a recent article from the pen of

Prof. G. H. Bryan, F.R.S., which appears in this month's *Cornhill Magazine*. He, it may be remembered, called forth some vigorous protests from some of the leading engineers of the land when he advanced much the same views before the British Association at the last year's meeting. Claiming to be a scientific man and as an authority on aviation by virtue of certain mathematical achievements that are only hinted at in this precious article, he has the audacity to use the heading "The Wastage of Men, Aeroplanes and Brains" because, forsooth, he claims that had mathematicians received a fraction of the monetary encouragement that the flying men of the past few years have received "we should long ago have been flying about on machines whose stability had been previously tested, and the difficulty would have been reduced to a minimum." He then talks a lot about the "aerial gymnast" (meaning of course those brave pioneers who have risked their lives in order to obtain basic facts to substitute for the guesswork hypotheses of the close-closeted men of nothing else than figures) and seems almost wilfully to close his eyes to the fact that at least men like the Wrights, like Blériot, Henry Farman and other recognised leading lights of the very first water can neither be included in his sweepingly derogatory insinuations nor can for a moment be mentioned in the same breath with any man who is professional mathematician first and enthusiast for progress a long way after.

Possibly it may seem to some that we are going rather unnecessarily far on this occasion to condemn the peculiar idiosyncrasy of a doubtless otherwise worthy professor. What matter if his methods are reminiscent of the man who is content to pace the yards but then insists upon measuring the remaining inches with a micrometer, or in other words prefers to pin his faith to a carefully calculated machine with every part made to accord with sheets and sheets of intricate figures—regardless of the fact that *guessed* data has formed the starting point—rather than to an evolved machine, the evolution of which has at each stage called for a rare display of combined calculation and observation? Let it not be forgotten, however, that nine out of every ten men who read the *Cornhill* article in question have a natural respect for that old-established magazine, have a way of thinking that the prefix "Prof.," as well as the affix "F.R.S." mean something warranting implicit acceptance, but have as yet secured little first-hand knowledge relating to the technical aspects of aeronautics.

Hence, in common fairness to the flying men, who are very far removed indeed from haphazard triflers with life and death, we feel it our bounden duty to protest against this ill-considered utterance of so self-pronounced an extremist.



AVIATION IN PARLIAMENT.

ON Thursday last week the Secretary for War, in reply to Mr. Lonsdale, officially stated that twelve Army officers had obtained certificates of efficiency in aviation, and in regard to the decision as to what type of aeroplane was most suitable for Army purposes he stated that these were still in the experimental stage and no type had yet been selected as the most suitable.

On Monday last, Mr. Charles Bathurst wanted to know from Mr. Haldane whether in view of the injury caused to,

and the apprehension felt by, flockmasters on Salisbury Plain owing to the stampeding of their in-lamb ewes through fright caused by the whirr of unseen aeroplanes, he would take steps to prevent aviation for military purposes in that locality during the lambing season.

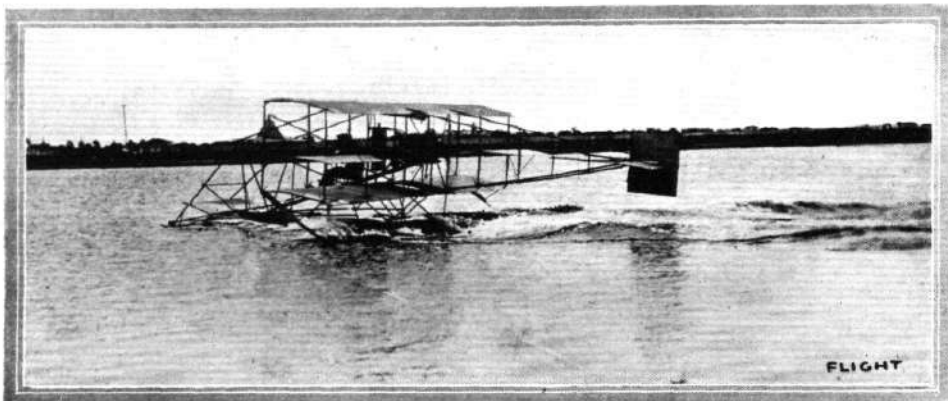
The Secretary for War in response had, however, no official cognisance of any complaints of ewes being frightened by aeroplanes, so the Honourable Member was asked if he would be good enough to give some detailed information on the subject.

FLIGHT PIONEERS.



MR. C. H. GRESWELL.

RISING FROM THE WATER BY AEROPLANE.



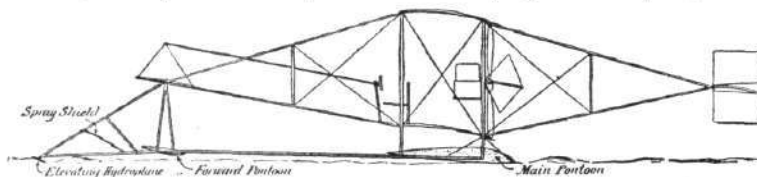
Mr. Glenn Curtiss getting up speed before rising from the water with his biplane at San Diego, California, as recently reported, this being the first time this feat has been accomplished.

ALTHOUGH according to "authority" no advance has been made in aviation since the Wright Brothers first flew, there are some who consider the feat of Mr. Glenn H. Curtiss, on January 26th last, in rising from the surface of the bay at San Diego, California, on his experimental hydro-aeroplane, as some slight encouragement to others to try and help towards advancing aviation beyond the early Wright stages. At the time we made a brief note of the cabled information and further details are now to hand in regard to this very practical work in helping forward the art. The machine, fitted with special pontoons, was pushed into the water from the shed erected upon the beach near to the Army and Navy Aviation School recently established by Glenn Curtiss. The engine having been started, the aeroplane at once moved away steadily towards deep water. Gaining speed, the pontoons began to rise in the water until it was seen that the main support by this means on the water was practically gone. The head resistance and skin friction being thus reduced, speed rapidly increased, and Curtiss, tilting the lifting plane well up, the machine rose from the water almost as easily as leaving the ground. After rising to a good altitude, Curtiss veered round on his aeroplane towards deep water, and after a few seconds aloft, again came down quite gracefully on the water. For a first effort this was a great achievement. For the second flight, after a short run on the surface, he again ascended, circling

over the channel, and re-alighted after being in the air for 1 min. 21 secs. During the day two more experimental flights followed, and on the next day he went up off the water, remaining aloft 3½ mins., and he was satisfied upon this occasion that he could have remained in the air carrying his pontoons just as long as his fuel lasted. On the 21st inst. he was again up and flew for 5 miles over the sea. The balance appeared to be quite as perfect with the addition of the pontoons as when on wheels, and the 8-cyl. 50-h.p. Curtiss engine maintained its reputation for reliability without a hitch.

The following particulars of the pontoons and scheme of the machine are given by the *Scientific American* :—

The pontoons or hollow hydroplanes developed by Curtiss



GLENN CURTISS' START OFF WATER.—Sketch showing the position of pontoons at the instant of rising from the water.

are of peculiar construction, altogether different from many newspaper illustrations of his remarkable flights at San Diego. In reality, after a speed of 30 miles an hour is reached, the main pontoon sustains the machine. This apparatus is constructed of steel sheets laid over a wooden framework. A horizontal cross-section, midway between top and bottom, would show a perfect parallelogram 6 ft. from side to side and 7 ft. from front to rear. At the rear



Photos by *Scientific American*.

GLENN CURTISS' START OFF WATER.—On the left the main pontoon is seen, and on the right the biplane is being towed on to the water for the first trial.

is a "tail," 8 ins. deep, extending the full width of the pontoon. The greatest depth of the pontoon (at the centre) is 16 ins. between surfaces. As attached to the frame of the aeroplane, it is inclined slightly upward, so that when full speed is attained just before leaving the water, practically the only part submerged is the extreme rear of the pontoon and the "tail."

This pontoon takes the place of the two rear wheels on the Curtiss type of aeroplane, and it acts with a hydroplane effect, rising to the surface of the water as the speed increases.

In front of the main pontoon, at the point where the single wheel is attached on the ordinary land machine, is fixed a small pontoon or "shoe" of approximately the same shape, 18 ins. wide, 40 ins. long, and 6 ins. deep. This pontoon answers the same purpose on water that the forward wheel does on land. Above the front pontoon and a little forward is a canvas-covered water shield 6 ft. wide and 2 ft. high, tilted at an angle of 45° . This apparatus is to protect the aviator and machinery from the upward swish of the water; also to add to the buoyancy of the machine in case of a sudden tendency to dive.

At the extreme forward end of the framework, and at about 1 ft. lower level than the front of the small pontoon, is attached a wooden hydroplane, 6 ft. long, 8 ins. high and $1\frac{1}{4}$ ins. thick. This is tilted at an angle of about 25° and is intended to aid

in lifting the forward part of the machine when it is under way. The forward elevating plane, ailerons, main planes and rear control are the same as the ordinary type of Curtiss racing biplane, the main planes having a spread of 26 ft. and a width of 4 ft. 9 ins. The speed in the air is from 50 to 55 miles an hour.

On Friday of last week Mr. Curtiss publicly proved again the value of his hydroplane when used for practical flight in connection with war vessels, demonstrating *inter alia* that a specially constructed platform on a ship's deck is not in any way necessary for rendering the aeroplane of practical use to the Navy. Using his special hydro-aeroplane, he made a flight towards the cruiser "Pennsylvania" and alighted on the water close alongside the vessel. His machine was then hauled on board and presently dropped back again into the water, Curtiss once more rising into the air with the greatest ease and returning by the air back to his shed.

All this must indeed gladden the heart of Admiral Sir E. H. Seymour, who, at the Royal Aero Club dinner recently, stated that he was greatly impressed by the fact that Mr. McCurdy, in his Havana flight, was able, when his engine stopped, to alight on the water with his machine without any fear of the whole arrangement sinking, including himself. This further evidence of the practical work obtainable from aeroplanes should still more bring home its lesson.

FLYING TO THE DOG DERBY.

It was a decidedly original scheme of Mr. C. C. Paterson, of Freshfield, Liverpool, to attend the Waterloo Cup meeting at Altcar last week by means of his Farman aeroplane. Although quite an ordinary little trip so far as Mr. Paterson was concerned, it was a source of intense delight and astonishment to the habitués of the great Dog Derby. Accompanied by Mr. King, in quite ideal weather, Mr. Paterson, rising easily from the Freshfield flying grounds, arrived upon the Altcar course just before 1 o'clock. No sooner was the

approach of the machine noticed than all interest momentarily ceased in connection with the coursing. Every eye was strained watching the approach of the flyers. When right over the course at a height of about 50 yards, Mr. Paterson completely encircled the coursing field and then made a detour beyond Hill House Wood, disappearing from the public view. After about three-quarters of an hour Mr. Paterson and Mr. King arrived together at the grounds by motor car and subsequently, having re-started on their aeroplane,



Mr. C. C. Paterson, with Mr. King as passenger, just after their arrival at Altcar on their Farman biplane, for the Waterloo Cup.



Mr. Paterson, of Freshfield, arriving, with Mr. King as passenger, on their Farman biplane at Altcar on the first day, to witness the coursing for the Waterloo Cup.

returned to the coursing field, arriving there at about 2.30, this time coming to earth at the back of the Club enclosure, their very graceful landing being much applauded by the spectators. Quite a reception for half-an-hour or more followed and after the finish of the sport of the day they

again took wing, passing away over the heads of the crowd at a height of about 20 ft., steering straight back for Freshfield. The vociferous cheering must have delighted the ears of the two aviators for a very considerable distance on their journey home.

MR. O. C. MORISON'S BROOKLANDS-BRIGHTON FLIGHT.

As we were able to briefly chronicle last week, Mr. O. C. Morison, starting on Wednesday afternoon with no more fuss than he would make in flying a few miles outside the boundaries of the Brooklands Aerodrome, arrived at his destination in a time and at a speed that would shame the best express the Brighton and South Coast Railway have running. His original intention was to land opposite the Chain Pier Bazaar, but when he arrived this pre-arranged landing-place appeared to be so very small from his bird's-eye view in the air, and coupling this with the fact that the crowds of people who had assembled gave visions of possible accidents, he changed his mind. After turning and flying past the West Pier and back again, he decided to plane down on the beach upon a patch which appeared to be sand. Unfortunately, it was not until he was a few feet off that he realised his mistake and came down on to treacherous shingle, thereby smashing his propeller and damaging the chassis. Altogether Mr. Morison must have flown about 60 miles, although the direct distance from Weybridge is only about 40 miles, as his first touch with the sea was at Worthing, a distance of about 11 miles along the coast. When passing over the Downs he attained his greatest altitude of about 3,000 ft. above Brooklands level, and here the wind was inclined to be gusty. From Worthing when he turned left towards Brighton, Mr. Morison steered a zigzag course, as he was a little bit doubtful as to the quantity of petrol which he still had, and by this means he was able to ensure having a good chance of finding a suitable landing-place at any moment if necessary. That Mr. Morison was not mistaken in his tactics may be gathered from the fact that out of the 7 or 8 gallons of petrol with which he started from Weybridge, only a very small quantity of fuel remained in the tanks. Soon after landing, Mr. Morison's friends and mechanics appeared upon the scene, they having followed immediately

after the start, by car. In the meantime the machine was rapidly dismantled and the sections conveyed to the Madeira Drive, and ultimately to the King's Cliff Motor Company's garage in Coalbrook Road, Brighton, opposite the Kemp Town Station. The machine afterwards was on view at the Prudential Garage, King Street, Brighton, where, so as to check the mere curiosity of the crowd, a small charge was made for its inspection.

During the morning, before his afternoon start for Brighton, Mr. Morison had been up at Brooklands for a trip as far as Cobham, some 8 miles away, returning to the aerodrome after lunch. His actual decision to make his journey to Brighton was not taken until about 3.45, when, with a lull in the wind, he thought it was worth the attempt, and after a trial circuit round the track just as a final test of the temper of the engine, he passed away over the aerodrome boundary at 4.5.

By way of celebrating this flight, which will certainly rank amongst historic feats, a dinner was given on Monday evening last at the Royal York Hotel, the Deputy Mayor, Mr. Alderman Geere, J.P., presiding, supported by Sir John Blaker, J.P., Sir Theodore Angier, Alderman B. Marks, J.P. (Mayor of Hove), and a host of enthusiastic admirers and friends. This banquet was organised at the initiative of the Sussex Motor Yacht Club, and the reception of the guest of the evening was hearty in the extreme. The Deputy Mayor, in suggesting that there would be a number of others who would be found to follow Mr. Morison's example, prophesied that Brighton was quite likely to become as popular an objective for aviators as it had been for automobilists. So far as the local authorities were concerned, it would not be their fault for want of encouragement, if it were not so.

A gold cigarette case as a souvenir of the flight from members of the Sussex Motor Yacht Club was presented to Mr. Morison,

PROBABLE MARCH WEATHER.

By T. F. MANNING.

THE cheeriest feature in the meteorology of March is the great increase of sunshine. There are nearly twice as many hours of sunshine in March as in February (at Greenwich), and three times as many as in December, which is the least sunny month of the year. Thus, while we have only an average of 36 hours of sunshine in December, 42 in January, and 56 in February, the record jumps to 106 hours in March.

With this comes a kindred improvement of no little consequence to the flying man, namely, a decrease in the number of very cloudy days. Taking a long series of years, we have the following average figures:—

	February.	March.
Extreme cloudiness or overcast sky...	12 (12½) days	10 (10½) days
Moderate cloudiness...	13	17
Little cloud or cloudless	3	4 (3½)

Dense fogs show a considerable decrease, March being better than any month since September, and better than September itself.

In other respects the weather of March, as a whole, makes no advance on that of February. It has almost as many fogs of all degrees, about the same number of snowfalls, more gales, and twice as many falls of hail.

As to wind, March is the third most stormy month of the year, the order being—January, December, March. The average number of gales in this month is 2½, and the most likely time for these is the beginning of the month (1st to 12th), in the south of England, and the middle of the month in the east. But about the 24th of March gales begin to decrease rapidly, and do not become again frequent till the end of October or November.

Snow is one of the most uncertain of weather phenomena, as many as fifteen falls being registered in the year 1838, while other years have only three or four falls, and there was one year at least (1862-3) in which not a single fall occurred in the South of England. But, on an average, March is the third worst month. As will be seen from the table below, the second week is by far the most snowy period, while towards the end of the month the falls rapidly diminish in number.

Hail reaches its maximum for the year; the three great hail months being March, April and May, but even in March hail is a rare phenomenon, the average falls being only 1½ for the whole month. With its east and north-east winds, which now begin, March is a very dry month, having the smallest rainfall, next to February; but it has slightly more rainy days than any month from now until October. Thunder is still very infrequent, about one thunderstorm in six years; but towards the end of the month this phenomenon begins to make some headway towards its summer maximum.

The average weather of March compared with that of February is shown in the following table, which gives the number of events occurring in a period of ten years:—

Ten years' gales	Feb., 20	March, 23
.. snowfalls	32	32
.. fogs	30	27
.. dense fogs	6	4
.. hail storms	6½	13
.. thunder storms	½	2
Hours of sunshine during month (London)...	56	106
Rainy days	12½	13

With regard to the following daily weather table, it may be again remarked, as in the last article on this subject, that the tables are a record of past weather, and are not to be taken as an intended forecast of the weather in the coming month. The figures, however, are a useful index of probabilities, and would represent faithfully enough the average weather of March for the next ten or twelve years. It will be noted that they confirm the old proverb that "March comes in like a lion and goes out like a lamb."

Table of Average Weather Phenomena in March.

The figures show how many times in a hundred years each event occurs. The odds against any event on a given day would be as 100 to the figure in the table:—

Day.	Gales.	Fogs.	Dense Fogs.	Snow-falls.	Hail.	Thunder.
1 ...	11	3½	1	12	5	1
2 ...	8	9	2	12	3	—
3 ...	12	11	2	15	5	1
4 ...	5	7	3	10	2	—
5 ...	10	8	2	6	1	—
6 ...	9	7	—	15	4	1
7 ...	8	9	1	9	2	—
1st week ...	63	54½	11	79	22	3
8 ...	9	9	3	12	10	—
9 ...	11	13	—	18	3	—
10 ...	7½	14	2	15	4	1
11 ...	9	6	—	12	4	1
12 ...	11	9	1	15	5	—
13 ...	7	7	—	9	3	—
14 ...	5	6	—	9	4	—
2nd week ...	59½	64	6	90	33	2
15 ...	7	8	1	10	5	—
16 ...	7	8	—	9	4	—
17 ...	4½	12	2	10	3	—
18 ...	5	10	3	7	5	1
19 ...	7½	16	1	9	5	1
20 ...	10	15	—	9	3	1
21 ...	7	9	3	3	7	2
3rd week ...	48	78	10	57	32	5
22 ...	7½	10	—	13	6	1
23 ...	7½	7	1	12	5	—
24 ...	6	7	2	13	5	1
25 ...	3	3	2	10	2	—
26 ...	6	9	—	13	4	1
27 ...	4½	8	1	9	5	—
28 ...	4½	7	1	9	4	2
4th week ...	39	51	7	70	31	5
29 ...	4	11	4	5	5	—
30 ...	5	9	3	6	5	1
31 ...	5	6	1	5	1	1



THE PUPIN MOTOPLANE.—A new arrival at the London Aerodrome. Mr. Pupin, the designer, is standing to the right.

The Royal Aero Club of the United Kingdom

OFFICIAL NOTICES TO MEMBERS

Annual General Meeting.

The Annual General Meeting of the Members of the Royal Aero Club of the United Kingdom will be held on Thursday March 30th, 1911, at 5 o'clock, at 166, Piccadilly, London, W.

Notices of Motion for the Annual General Meeting must be received by the Secretary not less than twenty-one days before the meeting, and must be signed by at least five members. Wednesday, March 8th, 1911, is the last day for the receipt of Notices of Motion.

Committee.

In accordance with the rules, the Committee shall consist of eighteen members. Members are elected to serve for two years, half the Committee retiring annually. Retiring members are eligible for re-election.

The retiring members of the Committee are:—

Griffith Brewer	Prof. A. K. Huntington
Major C. de W. Crookshank, R.E.	F. K. McClean
John Dunville	C. F. Pollock
Capt. A. H. W. Grubb, D.S.O., R.E.	Stanley Spooner
Col. H. C. L. Holden, R.A., F.R.S.	

Any two members of the Club can nominate a member to serve on the Committee, having previously obtained such member's consent. The name of such member so nominated, with the names of his proposer and seconder, must be sent to the Secretary in writing not less than fourteen days before the annual general meeting. Wednesday, March 15th, is the last day for the receipt of nominations.

The following members have so far been nominated:—

Griffith Brewer	F. K. McClean
G. B. Cockburn	A. Ogilvie
John Dunville	Mervyn O'Gorman
Col. H. C. L. Holden, R.A., F.R.S.	C. F. Pollock
Prof. A. K. Huntington	Stanley Spooner

Members are reminded that a ballot paper for the election of nine candidates to seats on the Committee of the Club will be forwarded to them at least seven days before the date of the annual general meeting.

Committee Meeting.

A meeting of the Committee was held on Tuesday, the 21st inst., when there were present:—Mr. R. W. Wallace, K.C., in the chair, Mr. Griffith Brewer, Mr. Ernest C. Bucknall, Col. H. C. L. Holden, R.A., F.R.S., Prof. A. K. Huntington, Mr. V. Ker-Seymer, Mr. E. Manville, Mr. J. T. C. Moore-Brabazon, Mr. C. F. Pollock, Mr. Stanley Spooner, and Harold E. Perrin, Secretary.

Election of Members.—The following members were elected:—*Life Membership.*—Philip Gardner.

Ordinary Members.—R. O. Abercromby, F. Kincaid Etlinger, Robert C. Fenwick, Capt. Charles Robert Lloyd, Lieut. R. T. Snowden-Smith, Emile Stern, Lancelot Leslie Vigers.

Airship Pilot's Certificate.—The following certificate was granted:—

5. T. Ridge.

Gordon-Bennett Aviation Cup.—The receipt of the challenge from the Aero Club de France was reported.

It was unanimously resolved that a team representing the United Kingdom be selected to defend the Cup.

In order to give as much time as possible, it was decided to extend the date of entry to May 1st next. Intending competitors are requested to notify the Secretary of the Royal Aero Club, on or before that date, of their willingness to compete if chosen. Entries must be accompanied by a remittance of £20, which amount will be returned should the entrant not be selected.

Up to date the following countries have entered for the contest:—America, France, England.

European Circuit.

The proprietors of *Le Journal*, who are organising the European Circuit, have placed the management of the race as far as England is concerned in the hands of the Royal Aero Club. The contest will probably take place early in June, and the proposed course includes Paris, Berlin, Brussels, London and Paris.

An International Committee will meet in Paris on March 3rd next to discuss the rules, &c., and the Royal Aero Club will be represented by Messrs. V. Ker-Seymer, M. O'Gorman and H. E. Perrin (Secretary).

Naval Officers at Eastchurch.

A letter has been received from the Admiralty expressing their thanks for the generous offer of the Royal Aero Club to place two aeroplanes at the disposal of naval officers to enable them to practise aviation at the Club's flying ground at Eastchurch. It will be remembered that these aeroplanes were handed over to the Club for this purpose by Mr. Frank K. McClean, who is now on his way to the Southern Pacific.

The machines, together with the shed accommodation, and the necessary instruction, are placed at the disposal of the Admiralty free of any charge, and the Admiralty has consented to make good any damage.

Four officers (three naval and one marine) have been selected for a six months' course of instruction, commencing March 1st, and Mr. G. B. Cockburn, who is a certified aviator and member of the Club, has kindly consented to give instruction as regards the flying. It may be recalled that Mr. Cockburn was the first Englishman to fly in open competition, having represented this country in the Gordon-Bennett Aviation Race at the first Rheims meeting, 1909. Mr. Cockburn has recently been giving gratis instruction on his own machine to army officers stationed at Salisbury Plain.

The naval officers will also undergo a course of construction with Messrs. Short Bros., whose works adjoin the Club's flying ground at Eastchurch.

The road from Eastchurch Station to the flying ground has now been made up.

Competitions Committee.

A meeting of the Competitions Committee was held on Monday, the 20th inst., when there were present:—Mr. Mervyn O'Gorman, in the chair, Mr. Ernest C. Bucknall, Colonel H. C. L. Holden, R.A., F.R.S., Professor A. K. Huntington, Major F. Lindsay Lloyd, Mr. R. W. Wallace, K.C., and Harold E. Perrin, Secretary.

"Daily Mail" Second £10,000 Prize.—The draft rules were again considered, and the Secretary was instructed to submit them to the Proprietors of the *Daily Mail*.

The E. Manville £500 Prize and Michelin Cup No. 2.—The rules for these prizes were drafted.

Rolls Memorial Library.

A meeting of the Library Committee was held on Tuesday, the 21st inst., when there were present:—Professor A. K. Huntington, in the chair, Mr. C. G. Grey, and Mr. Stanley Spooner.

It was decided to draw up a list of Aeronautical Works to form the nucleus of the Library.

Mr. T. O'B. Hubbard was added to the sub-committee.

Lecture by M. O'Gorman.

Mr. Mervyn O'Gorman will deliver a lecture before the Institution of Automobile Engineers, on Wednesday, March 8th, 1911, at the Institution of Mechanical Engineers, Storey's Gate, St. James's Park, S.W. The subject will be "The Stability of Aeroplanes and Dirigibles."

The Institution of Automobile Engineers has kindly placed tickets at the disposal of members of the Royal Aero Club, and members wishing to attend are requested to make application to the Secretary of the Royal Aero Club, 166, Piccadilly, London, W. The lecture will commence at 8 o'clock.

International Aero Exhibition at Olympia.

The date of the International Aero Exhibition, held by the Society of Motor Manufacturers and Traders under the auspices of the Royal Aero Club, has been altered, and the Exhibition will now open on Friday, March 24th, and terminate on Saturday, April 1st, 1911.

Full particulars can be obtained on application to the Exhibition Manager, Society of Motor Manufacturers and Traders, Maxwell House, Arundel Street, Strand, London, W.C., or the Secretary, Royal Aero Club, 166, Piccadilly, London, W.

In connection with this Exhibition, a section for models will be organised by the Royal Aero Club, assisted by the Aviation Section of the Automobile Association and Motor Union. Full particulars can be obtained from the Secretary, Royal Aero Club, 166, Piccadilly, London, W.

Members of the Royal Aero Club will be admitted free on production of their membership cards.

A room in the Princes' Gallery will be placed at the disposal of the members during the Exhibition.

Aviators' Certificates.

The Royal Aero Club of the United Kingdom will grant certificates in accordance with the regulations of the Fédération Aéronautique Internationale to candidates who have complied with the following rules:—

RULES.

1. Candidates must accomplish the three following tests:—
 - A. Two distance flights, consisting of at least 5 kilometres (3 miles 185 yards) each in a closed circuit, the distance to be measured as described below.
 - B. One altitude flight, consisting of a minimum height of 50 metres (164 ft.), which may form part of one of the two flights prescribed above.
2. The course on which the aviator accomplishes tests A must be marked out by two posts situated not more than 500 metres (547 yards) apart.
3. After each turn round one of the posts the aviator must change the direction when going round the second post, so that the circuit will consist of an uninterrupted series of five figures of 8.
4. The distance flown shall be reckoned as if in a straight line from post to post.
5. The method of alighting for each of the flights shall be with the motor stopped at or before the moment of touching the ground, and the aeroplane must come to rest within a distance of 50 metres (164 ft.) from a point indicated previously by the candidate. The landing must be effected under normal conditions, and the officials must report the manner in which it was effected.
6. Each of the flights must be vouched for in writing by officials

appointed by the Royal Aero Club. All tests to be under the control of, and in places agreed to by, the Royal Aero Club.

7. All flights must be made between sunrise and sunset, and suitable previous notice must be given to the Secretary of the Royal Aero Club.

8. The Royal Aero Club declines all responsibility for any accidents, or any damage that may occur to the aviators, their machines, or to any third parties during or in connection with the qualifying tests of the candidate.

9. Candidates must make application on a form provided for that purpose. Any expenses incurred must be borne by the candidates.

10. Foreigners belonging to a country represented on the Fédération Aéronautique Internationale can only receive a certificate from the Royal Aero Club after having obtained the consent of their national sporting authority, as approved by the Fédération Aéronautique Internationale. A certificate may be granted to a foreigner whose country is not represented on the Fédération Aéronautique Internationale.

11. The Committee of the Royal Aero Club will decide if the candidate has qualified for a certificate, but reserves the right to refuse the same or withdraw the same at any time without giving reasons.

12. The decision of the Committee of the Royal Aero Club in all matters connected with the tests is final and without appeal.

13. The Committee of the Royal Aero Club may in special cases waive any or all of the above rules, and grant certificates at its discretion.

HAROLD E. PERRIN.

Secretary.

166, Piccadilly.

HENDON - BROOKLANDS CROSS-COUNTRY FLIGHT. UNDER THE RULES OF THE ROYAL AERO CLUB AND THE FEDERATION AERONAUTIQUE INTERNATIONALE.

PARTICULARS of some new prizes are to hand for a flight from Hendon to Brooklands or *vice versa*. The following are the conditions:—

1. Mr. Claude Grahame-White, of the London Aerodrome, Hendon, and the Proprietors of Brooklands Aviation Ground, Weybridge, offer the sum of £50 to be divided as 1st prize £30, and 2nd prize £20 to the aviator who shall, within the hours of 2 p.m. and 5.30 p.m. on Saturdays, February 25th, March 4th, 11th, and 18th, accomplish a flight from the London Aerodrome at Hendon to Brooklands, and Brooklands back to Hendon, or *vice versa*, in the shortest time.

2. **Qualification of Competitors.**—The contest is open to competitors of any nationality holding an aviator's certificate issued by the International Aeronautical Federation.

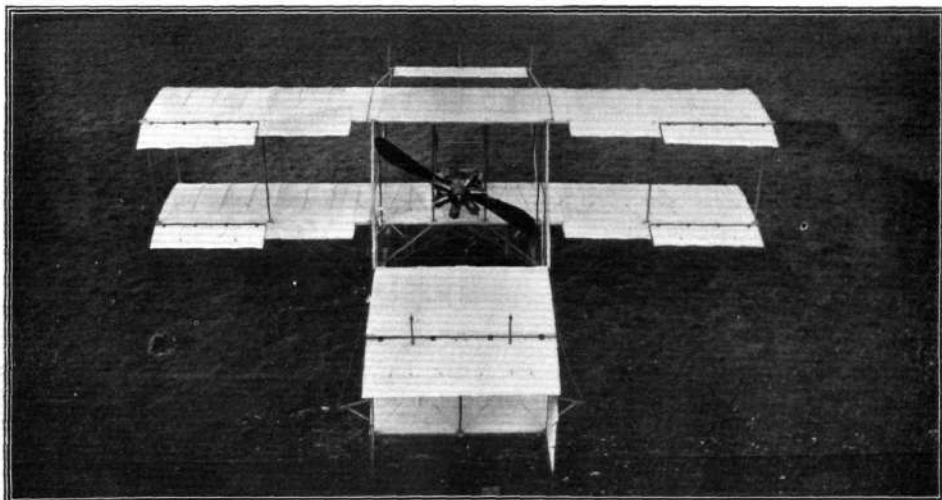
3. The double flight must be accomplished on the same machine and on the same day.

4. The time will be taken from the time of leaving the ground at one flying ground to the time of first touching the ground at the other, and for determination of the flying time, the time of the two flights will be added together—

the time of remaining at the middle point not being taken into account.

5. The original start must be made after 2 p.m., and the final landing accomplished before 5.30 p.m. for the flight to count towards an award. Forty-eight hours notice of intention to compete must be given in writing to either C. Grahame-White, 1, Albemarle Street, Piccadilly, W., or to Brooklands Automobile Racing Club, Carlton House, Regent Street, S.W., accompanied by an entrance fee of £1 and a statement as to which flying ground the competitor intends to start from. The entrance fee of £1 will be returned to any competitor who accomplishes at least a half of the course.

6. Should a competitor in landing at either flying ground cause damage to his machine he shall make a 5 mins. flight within half an hour of his landing in order to demonstrate that his machine is in proper flying condition. Should the damage be of such a nature as to make repairs impracticable within half an hour of landing, the competitor will be disqualified for that attempt.



View of Mr. Grahame-White's "New Baby" biplane from behind, showing the balancing planes and the hinged extension of the upper tail plane.

BRITISH NOTES OF THE WEEK.

Mr. Graham-Gilmour Joins the Bristol Co.

We are officially informed that Mr. Graham-Gilmour has joined the permanent staff of the British and Colonial Aeroplane Co., Ltd., as one of their pilot aviators.

Models at Scottish Exhibition.

THE exhibition of models under the auspices of the Scottish Aeronautical Society, at the Scottish National Exhibition to be held in Glasgow from May to October, promises to be a very interesting one. Two prizes of 5 and 2 guineas are offered by the Society for the two best model aeroplanes built to scale, but the scale must not exceed one-eighth actual size. No entrance fee will be charged, and the Committee reserve the right to retain all entries for the full period of the exhibition or return them carriage forward after judging has taken place. The models should be received in Glasgow, Wednesday, April 26th, and must be sent carriage paid. Scale measurements as published in *FLIGHT* will be accepted as correct, and the entrants must state of what machine their model is a copy.

Lectures by Mr. R. W. A. Brewer.

THE lecture prepared by Mr. R. W. A. Brewer, entitled "The Art of Aviation," and illustrated by about 150 lantern slides, is proving a very popular one. Arrangements have been made for Mr. Brewer to give the lecture at the Kursaal, Harrogate, on March 4th, and also before the Philosophical and Literary Society, Hull, on March 7th, while it will also be given at the Masonic Hall, Oxford, on the 10th prox. The two former meetings will commence at 8 p.m. and the last mentioned at 5 p.m.

M. C. de la Torre Buried at Plaistow.

FOLLOWING the very regrettable death of M. de la Torre at Douzy, as recorded in our last issue, his body was conveyed last week for interment in Plaistow Cemetery by Mr. A. Macgregor McColl, of Appin Lodge, Avondale Road, Kinnaird Park, a very intimate friend of the deceased, a very large

number of wreaths bearing testimony to the great affection in which the late M. de la Torre was held.

Mr. Ernest Sutton to Resume Flying.

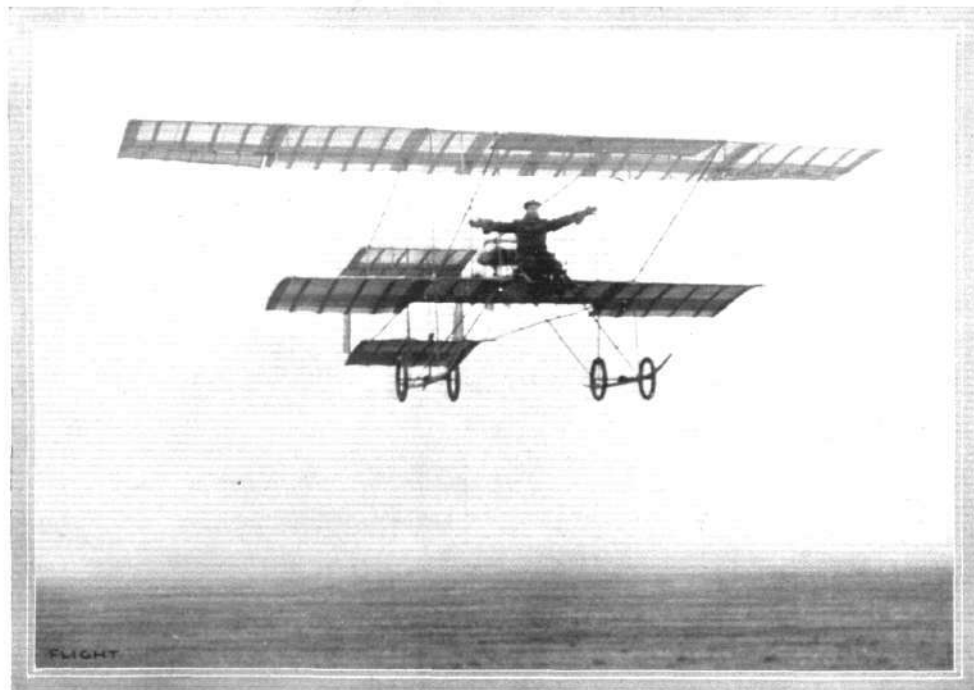
HAVING had his Blériot machine put right again after his recent mishap at Oxwich Bay, near Swansea, Mr. Ernest Sutton is now back at Swansea and in consequence of a few practical hints at the Blériot School at the London Aerodrome practising with his machine under more fortuitous circumstances.

A New Lubricant for Flight Engines.

IT is encouraging to find such firms as the Hull Oil Manufacturing Co., Ltd., of Stoneferry, Hull, turning their attention to the special requirements of the flying machine, and no doubt many of our readers will be interested in the announcement which this firm make in our advertisement columns regarding the lubricant which they are marketing as the result of their extended tests. The entry of such firms as this into the aviation business cannot but help forward the movement, and should do a great deal to encourage firms in other branches of the industry to give their serious attention to the matter.

Aeronautics at South Kensington.

IN the annual report of the Imperial College of Science and Technology, the governing body gives details of a scheme for education in aeronautics which it is hoped they will shortly be able to make complete provision for. Already arrangements have been made for a series of short courses of lectures of an advanced character dealing with aeronautical problems, and also, through the assistance of the Women's Aerial League, for the institution of a number of research scholarships in physics, chemistry, or engineering related to aeronautics. As soon as possible it is hoped to institute a regular full time fourth year course of study dealing with aeronautics similar to the fourth year course in railway engineering already established at the City and Guilds College.



NO NEED TO WORRY.—This is not an aviator in the last spasms of despair "crashing down" to earth, but just Mr. Maurice Ducrocq flying at Brooklands on his Henry Farman with his hands free from all controlling gear. Yet aviation has not advanced since the Wright Bros. first flew!

FROM THE BRITISH FLYING GROUNDS.

Laffan's Plane.

In the absence of Mr. Cody, who has been lecturing in Leeds, there has been no flying here this week.

The Paulhan machine has arrived at the Balloon Factory, and the Farman is now ready to go out.

London Aerodrome, Hendon.

Blériot School.—Tuesday morning of last week was fine, and the school machines were out early in the field, Messrs. Champion and Keeler indulging in a little rolling practice, making some good straight lines. Unfortunately the wind then sprang up, so the machine had to retire to the hangars, and nothing further could be done that day.

Wednesday saw the arrival of a new pupil at the school, Mr. G. L. Low, of the R.A., Woolwich, who had his first lesson. Afterwards Mr. Clayton, who looks like qualifying for his certificate at an early opportunity, made a fine flight, circling the ground three times and landing in perfect style. Mr. Henderson, who is a promising pupil, also took charge of the helm, making a few straight lines.

Thursday was a blank day, owing to a gale blowing.

Friday also being very windy, Mr. Abercromby, another new pupil, received in the hangar his first lesson for the manipulation of the different controls of the machine. Then, in the afternoon, taking advantage of a slight improvement in the weather, one of the school machines came out, and Mr. Low and Mr. Abercromby had another lesson, and made a very creditable show by keeping a fairly straight path.

Saturday was another blank day, on account of a very strong wind.

Another single-seater Blériot monoplane arrived this week at the school, and one of the new Blériot passenger monoplanes is expected in the course of a few days.

The Grahame-White School.—Monday morning of last week was not all that one could wish as far as temperature was concerned, but happily there was a dead calm. The three Grahame-White instructors gave an impressive demonstration of flying, all three being in the air together at times.

Hubert opened proceedings at 10 o'clock by bringing out the Wolseley-Farman, which he had intentions of flying for one hour. After 20 minutes circling the aerodrome at a height of about 100 feet

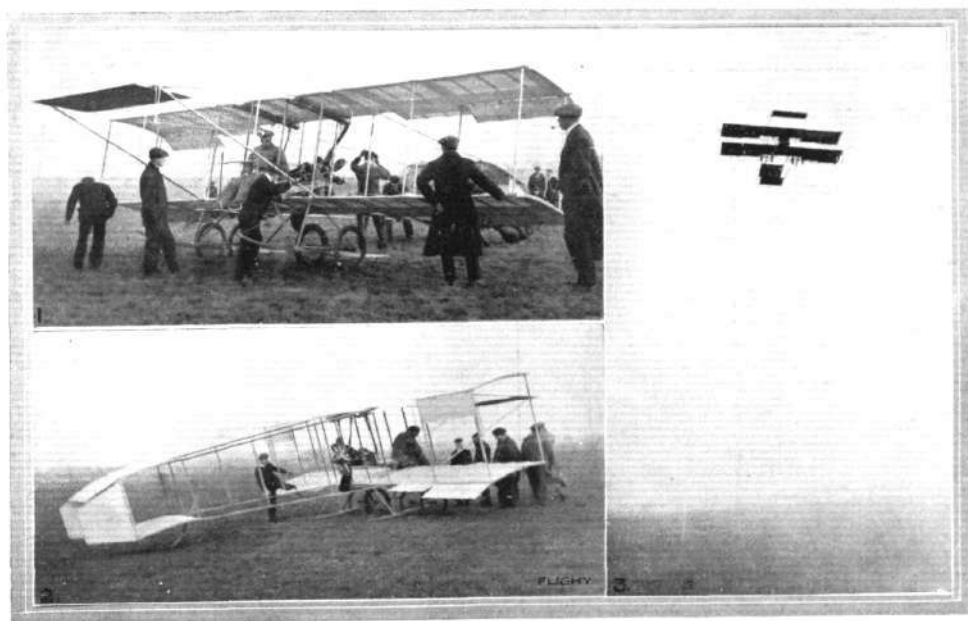
he was forced to come down owing to an air-lock forming in the petrol pipe. As soon as he had descended Martin brought out the "New Baby," the new racer built to Grahame-White's designs, and made a most excellent little trip of 20 minutes duration. During his first half-dozen circuits he maintained a good altitude, finishing his flight by three circuits not 6 feet from the ground, showing off effectively the little machine's speed. He was not content to rest over long, soon getting away again practising right-handed turns. On landing he expressed the opinion that the right-handed turn was decidedly more awkward than turning to the left, but it was in all probability simply due to the fact that the left-hand turn had become a habit and that it only required a little practice to render the right-hand turn equally simple.

Hubert was soon at work again on his Farman with the Wolseley motor, and getting off the ground quickly covered two laps of the aerodrome at an altitude of about 200 ft. Clement Greswell, with hopes of making a cross-country trip to Brooklands on the Gnome-Blériot, ascended after lunch to ascertain if the weather conditions were suitable for the trip. Finding that a slight mist rather obscured landmarks he decided to postpone the attempt. Soon after he was up again, climbing steadily until an altitude of 200 ft. was reached, passing the boundaries over the country in the vicinity of the aerodrome.

Passing over Edgware, he doubled back, following the main Edgware Road until he came to West Hendon. Here he steered at a sharp turn, and cutting off his engine made a superb *vol plané* right back on to the aerodrome, a distance of approximately a mile and a half. J. V. Martin in the meantime was making some very good flights on the "New Baby" racer. On one occasion he took the head mechanic as passenger for a single circuit, thus demonstrating the weight-carrying capabilities of this small-surfaced machine.

Towards evening Martin rose to a height of about 400 ft., and struck out in the direction of West Hendon. He made a wide circle round the town, and returned after an absence of about half an hour. Hubert then brought out the Wolseley-Farman once more, and in the course of a 30-minute flight rose to an altitude of about 500 ft., descending eventually *en vol plané*.

Meanwhile Clement Greswell had got off on the Gnome-Blériot, a machine to which he is evidently greatly attached, and in the course of a very finished flight of 15 mins. climbed to at least



MR. GRAHAME-WHITE'S "NEW BABY" BIPLANE RECENTLY COMPLETED.—(1) The machine seen from in front just before its first trial run. (2) A view from behind immediately after landing; and (3) "New Baby," piloted by Mr. Grahame-White, getting well up on its first circuit at the London Aerodrome, Hendon.

1,500 ft. He flew right outside the aerodrome, and in descending started his glide from a good distance the other side of the Edgware Road, landing as lightly as a feather. A new lady pupil of the Grahame-White School, Miss Irvine, had her first practical lesson in flying, being taken up by her fiancé, Mr. J. V. Martin, on the Farman for several circuits of the aerodrome. She is a very promising pupil, and during the last ten laps of the ground she was in charge of the lever, showing remarkable control over the machine.

Tuesday, the 14th, was a very blustery day, so unfortunately no flying could be indulged in.

The wind was still blowing strongly on Wednesday morning, but it abated somewhat after lunch time. Martin was the first to get away, he flying the Wolseley-Farman for several circuits.

Then Clement Greswell made an exceptionally nice flight on his Gnome-Blériot. Rapidly climbing to a height of 1,000 ft., as registered by his barograph, he proceeded to execute wide circles round the aerodrome.

His descent was remarkably pretty and effective. While flying over the hospital on his return to the aerodrome, he cut off his engine and *vol plané* in the direction of the sheds. At first it appeared as if he would run into them, but he cleared them by a very respectable margin, and landed faultlessly with his propeller stationary.

Meanwhile the Wolseley-Farman was disporting itself in the air under the control of Hubert. In a flight of half an hour's duration he mounted some 500 ft., flying extremely steadily. He landed by means of a very creditable *vol plané*.

From Wednesday the 15th until the time of writing flying was practically impossible, as the wind was blowing incessantly at a velocity that would render taking a machine outside the hangar a risky experiment. In the meantime the works have been fully occupied. Mr. Grahame-White's "stable" of six Gnome engines has been undergoing a thorough spring clean, while the Farman machine which Mr. Grahame-White used in his successful tour in the States is being entirely resurfaced, and constructed on a system that will render transport a simpler matter. The cellule is divided into three sections, which are joined by means of steel sockets. The fabric is finished off at the end of each section on to a box rib, thus dispensing with the tiresome lacing operation.

By the alterations now made it is possible to dispense altogether with packing cases and crates, which often weigh four times as much as the machine, and which need the services of a small army of men to move.

Valkyrie School.—Wednesday of last week was altogether too windy for flying most of the day. The weather changing in the middle of the afternoon, the Valkyrie machines were very soon out,



Mr. C. L. A. Hubert—a Frenchman—who has just secured his R.Ae.C. pilot's certificate at the Grahame-White School at the London Aerodrome, Hendon. Mr. Hubert has been doing a lot of very successful flying on this Farman, which is fitted with a 60-h.p. Wolseley motor.



Mr. C. L. A. Hubert flying high, on his Wolseley-engined Farman, in a mist at the London Aerodrome.

demonstrating their great stability. After a preliminary flight by the school instructor on "Valkyrie IV," Messrs. Eadsforth and Bendon both put in some useful practice. The Valkyrie pilot then took the big passenger carrier out, and after giving Mr. J. Bolitho a trip, put up a very pretty demonstration. Ascending very quickly to a considerable height, he accomplished three large circles each of about two miles, during which he made a *vol plané* descent to within about 20 ft. of the earth. Then ascending again he reached a height of several hundred feet and finished with a gliding descent right in front of the hangars. Later on, when it was almost dusk, the Valkyrie designer carried out some interesting experiments for the purpose of deciding exactly the best angle at which to glide to earth with engine stopped. In all some 15 or 20 *vol plané* descents were made at different angles and from heights ranging from 100 to 200 feet. Darkness then coming on further flying had to be abandoned.

During the rest of the week the prevailing gale has rendered flying far too hazardous to be worth risking a smash, and so plenty of indoor work has been got through by way as a set-off.

Salisbury Plain.

OWING to the recent stormy weather, there has been practically no flying to record with the exception that on Wednesday of last week Lieut. Conner was out and made a fine flight, although the variable currents of wind rendered it very tricky work. He had been working at a height of 200 ft. when, in making a turn, a gust of wind caught the right-hand side of the machine, causing it to drift towards the ground. In endeavouring to right it the biplane was tipped on to the elevator, throwing the pilot out, but fortunately he was not hurt beyond sustaining a few bruises, from which he is rapidly recovering. The biplane sustained some little damage to the struts, skids, and propellers. Col. Capper's machine has been sent away for a short time in order to have some alterations made. The Bristol machines have not been out owing to the bad weather, but at the first opportunity the Bristol monoplane will be seen in the air. Mr. Pizey has now taken over command of the flying school, and Mr. Thorne Baker is waiting patiently for the weather to allow him to carry out some further experiments in wireless telegraphy. A notable visitor to the ground on Saturday was Mr. Ogilvie, who spent some time inspecting the Bristol machines.



The Hammond triplane at Brooklands.

Brooklands.

OWING to the stormy conditions prevailing no flying was possible on the three closing days of last week and so there is not a great deal to record as having taken place at Brooklands. The outstanding event of last week was of course Mr. Morison's trip to Brighton, briefly referred to in our last issue, while further details regarding it will be found this week among "British Notes of the Week." By way of a preliminary canter, Mr. Morison on Tuesday of last week flew over in the direction of Hampton Court at a height of

about 2,000 feet, while on the morning of Wednesday week he made a trip to Cobham for lunch. The morning had been windy, but during the afternoon the conditions were a little calmer, and induced Mr. Sopwith to bring out his Howard Wright biplane, and later Mr. Hamel also had a run on the machine. Lieut. Watkins was also out, as well as Capt. Wood, on the Bristol machine, while others who did a little work were Gordon England on the Weiss and Mr. Billing on his biplane, while Mr. Sopwith was trying the Martin-Handasyde monoplane.



FOREIGN AVIATION NEWS.

Paris-Bordeaux-Paris Prize.

THE Aero Club of France have now definitely decided this year to organise two big competitions for aviators. One of these is to be the cross-country event from Paris to Bordeaux and back, and it is hoped to induce the Paris Municipal Council to devote part if not all of their prize to this event. It is proposed that the competitors should be started from Paris at intervals of 2 mins., and the only compulsory landing would be at Bordeaux. Arrangements are being made for the event to be held during the month of May.

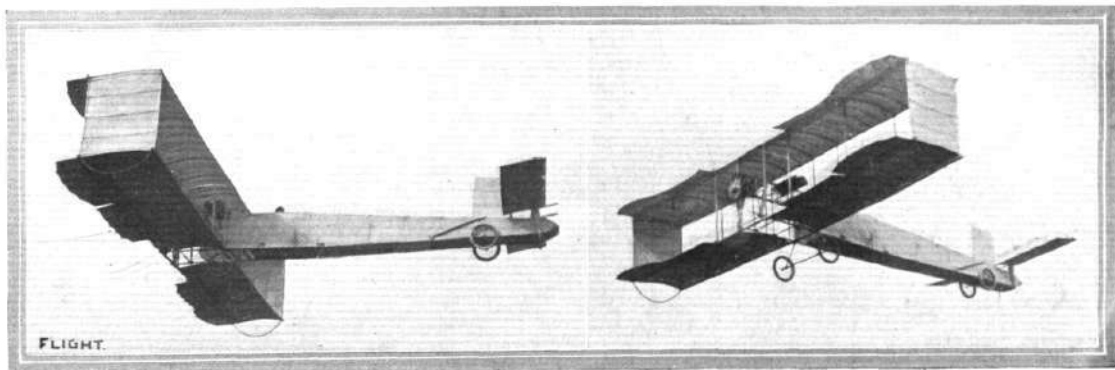
The Ae.C.F. Criterium d'Aviation.

THE second big event to be organised by the Aero Club of France will take the form of a distance competition over a

closed circuit, under similar rules to those which have hitherto governed the International Michelin Prize; that is to say, the prize will be awarded to the aviator who, at the end of the year, has covered the greatest distance in a closed circuit without touching the ground. For the current year the minimum distance to be completed is 600 kiloms., and the prize will be 10,000 francs.

The European Circuit.

THE proposal made by the *Paris Journal* for a flying race round Europe is meeting with a good deal of success in various countries, the National Aero Clubs of which have also taken kindly to the scheme. The prize fund now stands at 412,500 francs, of which the *Journal* has contributed 200,000, *Die B. Z.*



BREGUET IN FULL FLIGHT ON THE NEW VOISIN, WITH ITS FUSELAGE IN FRONT.—Note in left photograph the head of the pilot just showing above the enclosed fuselage.

Am Mittag (Berlin) 125,000 francs, the *Standard* (London) 62,500 francs and *Le Petit Bleu* (Brussels) 25,000 francs. Arrangements are being made for a conference of International Delegates to be held in Paris on March 3rd.

Rheims to Mourmelon and Back.

ON the 15th inst. Vidart, accompanied by Busson, made a trip on his Deperdussin monoplane from the school ground at Betheny to Mourmelon in 14 mins. After resting there for about an hour, Vidart flew back to Rheims alone. Earlier in the day Lorian had flown from Mourmelon to Betheny, but during the return journey he was obliged to land at Suippes.

Paris to Bordeaux in Company.

ANOTHER step forward in the use of the aeroplane for military purposes has been suggested, viz., that six aviators should make the journey from Paris to Bordeaux, three of them led by Captain Bellenger taking one route, while the other three would proceed in company but by a different route.

An Ambitious Project.

ANOTHER International flying race round Europe is announced from Italy, where a group of Italian sportsmen have suggested the organisation of a circuit starting from Rome and calling at Paris, Brussels, London and other principal cities, returning eventually to Rome.

Paris to London Without a Stop.

VERY complete arrangements are being made by the Association Generale Aeronautique in connection with the trip which Pierre Marie Bournique, who, by the way, appears now to be dropping his *nom de vol* of "Pierre Marie," proposes to make on his R.E.P. monoplane from Paris to London without a stop. He will leave Buc and passing over Beauvais and Amiens, make his way to Boulogne, where he will leave the French coast and, escorted by a number of torpedo boats, proceed across the Channel to the English shore, and so on to Wormwood Scrubbs.

Delings at Issy.

SOME very good flights have been made recently by Cei on his Caudron biplane at Issy. On the 15th inst. he was

flying for 1 hr. 4 mins., while on the previous day, during a cross-country trip of half-an-hour's duration, he passed over the Bois de Boulogne, Vanves and Issy-les-Moulineaux. Both Bregi and Colliex have been busy testing the new "Canard" type of Voisin, and once or twice passengers have been given trips.

Laurens Weight-Lifting.

AT the R.E.P. School at Buc, Laurens, on the 15th inst., carried a passenger weighing 100 kilogs. for a distance of 20 kiloms., during which he rose to a height of about 200 metres. Descent was made by a very fine *vol plané*.

Maurice Farman at Buc.

ON the 15th inst. Mr. Maurice Farman was at Buc, testing his new biplane fitted with a Panhard-Levassor engine. Several passengers were carried for short sprints in the new machine, among those so favoured being M. Pierre Delaunay-Belleville and M. Paul Panhard.

The New Sommer Machine.

VERY fair success appears to have been attained by M. Sommer with his new fast machine, the chief characteristic of which is its flat planes. Not only has a good turn of speed been obtained but the machine has shown itself capable of carrying a heavy load in the way of passengers.

A Day's Work.

AN interesting experiment was made the other day at Juvisy by M. Champel. He set himself to make as many flights as possible in the day, each time making a complete circuit of the ground before coming down. By the time he was compelled to suspend operations for the day he had succeeded in accomplishing no less than 62 distinct essays.

Issy May be Closed.

THERE appears to be a possibility that the Issy Parade Ground may be closed to civilian aviators and be entirely used for the training of members of the Military Aviation Corps. In view of the close proximity of Issy to Paris strong protests are being made against such action being taken, but it seems doubtful whether they will have any effect.

Watching Artillery Experiments from Above.

ALTHOUGH a stiff breeze was blowing on the 15th inst., MM. Breguet and Legrand rose from their flying ground at Douai in order to witness some firing practice carried out by a battery of artillery, against real targets, between Izel and Vitry. After accomplishing their object the aviators flew back to headquarters, and, with the wind behind them, attained a speed of about 130 kiloms. an hour.

The Puy de Dome Prize.

AFTER considering the letter from M. A. Michelin, to which we referred in our last issue, regarding a revision of the rules for the Michelin Puy de Dome Prize, the Aero Club of France have come to the conclusion that they cannot make the suggested alterations. At the same time they will see to it that all possible precautions are taken to avoid any accident occurring.

The Paris Municipal Council Prize.

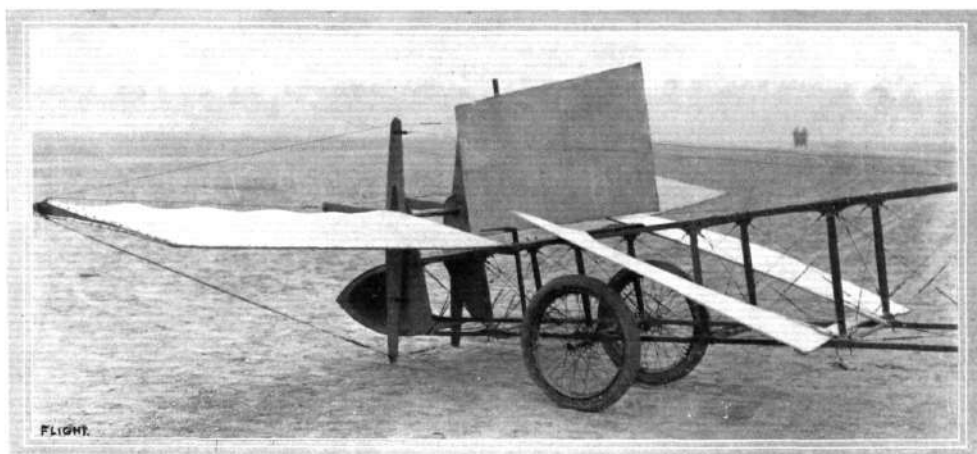
IT has been decided that the prize of 50,000 francs voted by the Paris Municipal Council, shall be called the "Quentin-Bauchart" Prize, and a Sub-committee of the Council is now considering the regulations under which the prize shall be competed for. Although nothing definite has been settled, it has been tentatively agreed that the prize will be awarded to the aviator who, during a period of six months, the exact date of which is to be arranged, has the greatest aggregate of passenger flights to his credit, only those flights being admitted which exceed a pre-determined period.

The French Special Military Aviator's Certificate.

SO far fourteen officers of the French Army and two of the Navy have qualified for the special military aviator's certificate under the regulations drawn up by General Roques, Inspector-General of Military Aeronautics. These officers are Captains Bellenger, Sido, Marconnet, and Marie; Lieuts. Camermann, Fequant, Remy, Acquaviva, Cronier, Chevreau, Maillols, Mailfert, and Letheux, and the Adjutant Menard. The two naval officers are Lieut. Byasson and Ensign Delage.



Sommer in flight at Mouzon on his new 50-h.p. Gnome-engined monoplane.



THE NEW VOISIN.—The elevating and steering planes in front. This machine was dealt with in FLIGHT on January 14th.

Another Lady Flyer at Issy.

ONE of the latest newcomers at the Issy flying ground is Mlle. Trany, who is rapidly becoming quite a proficient flyer on her monoplane. The other day she succeeded in covering two circuits of the ground at a height of 3 metres.

Touring in Company.

ON the 16th inst., five of the military aviators at Pau, including Captain Bellenger, left Pau and flew over to Biarritz, the journey there and back being made without special incident. The same day Kuhling was in the air for 45 mins., during which he passed over the town of Pau and the suburbs. Morin was also flying over the town and created some excitement by suddenly dropping down from a good height to

within a distance of about 10 metres above the ground, afterwards rising again to 1,000 metres and then making his way back to his headquarters.

A Naval Aviator at Pau.

IN making a test for the Special Military Pilot's Certificate, Naval Lieut. Conneau, on the 17th inst., rose on his monoplane from the Blériot School at Pau, and at a height of 800 metres made a circular trip of 120 kiloms., passing over Morlaas, Garlin and Lambeye. On Saturday last he covered a distance of 120 kiloms. over a closed circuit.

Legagneux at Nice.

BETWEEN his two machines, Legagneux contrives to do a good deal of work at Nice. On his Henry Farman biplane,



THE NEW VOISIN.—The pilot's seat—Colliex is in charge—showing the arrangement of steering gear, &c.

on the 16th inst., he flew from the California Aerodrome during the morning, and, by circling above the public gardens, secured a cup of the value of 1,000 francs, which had been offered. In the afternoon he mounted his Blériot monoplane and got away over to Mentone, where a Battle of Flowers was in progress. Descending to within a short distance of the Promenade, Legagneux participated in the Battle of Flowers by scattering several small bunches of violets amongst the crowd. After keeping over the town for about 20 mins. he made off in the direction of the Italian frontier, and then returned to Nice, passing over Turbie Hill. On the following day Legagneux made five flights during the afternoon, two on his Blériot and three on his Henry Farman biplane; in several of them being accompanied by passengers. On Sunday last, accompanied by Martinet, he again journeyed over to Cannes, the trip being accomplished in 20 mins. The two aviators were subsequently entertained to a banquet, at which they were presented with a prize of 1,000 francs, which had been offered for this voyage. The return journey was made in 24 mins., on the 20th inst., and during the afternoon Legagneux carried seven passengers on his Farman.

Other Flyers at Nice.

On Saturday last the Austrian aviator, Flesch, made his first flight on an Etrich monoplane fitted with a 50 to 60-h.p. Austrian-Daimler engine, and during a trip of 10 mins. steered out over the Bay of Anges. On the following day he was flying over the town and announced his intention of making a cross-country trip, accompanied by a passenger, to Monte Carlo and back.

The marine aeroplane built by M. Faber is now finished and will shortly be tested with a view to winning the Coupe d'Aspremont.

A New French Prize.

At the banquet offered by M. Ruhl at Cannes to the aviators Legagneux and Martinet, it was announced that a new prize is to be offered for a cross-country flight from Maisons-Lafitte to Cabourg and Dinard.

Things They Do Better in France.

IN order to assist aviators who intend to take part in a flight from Nice to Sartene, in Corsica, the Naval Commander at Toulon has received instructions to permit the cruiser "Polypheme" and two torpedo boats to render what assistance they can in the way of escort to the aviators. It is announced that Bregi, on a Voisin of the "Canard" type, intends to have a try shortly to win the prize. Bregi is now practising on this machine at Issy, the other day making on it a flight of over half-an-hour.

Succour by Aeroplane.

AFTER flying for about 3 hours with a passenger in the neighbourhood of Douai, Lieut. Ludmann was obliged to come down about 5 kiloms. from his shed, owing to his petrol supply unexpectedly giving out. M. Breguet, directly he was acquainted with the predicament, carried a supply of petrol on his machine to the stranded aviator, and, having replenished the tank, the two aviators flew back in company as darkness was falling.

Flying from Berlin to Johannisthal.

LEAVING Berlin at 1.50 on the afternoon of the 15th inst., Telton Iablonski flew to Johannisthal flying ground, and alighted there at 2.11, having covered the distance of 16 kiloms. in 21 mins.

Mdlle. Dutrieu at Barcelona.

On the 16th inst., Mdlle. Helene Dutrieu paid a visit to Barcelona, and, accompanied by two passengers, was flying over the country in the neighbourhood of the town for some considerable time.

Proposed Aerodrome at Manchester.

SEVERAL gentlemen hailing from Manchester having attained considerable success in the manipulation of flying machines, a suggestion has been put forward that "Cottonopolis" should have an aerodrome of its own. The scheme is to acquire a ground in Trafford Park, and to provide the necessary capital it is announced that a Company has been formed, the bulk of the funds for which have already been subscribed.

First Flights in China.

FIRST flights are reported to have been accomplished in China. These stand to the credit of M. Vallon, who, on the 21st inst., was flying in the neighbourhood of Shanghai with a Sommer biplane. M. Vallon has also a monoplane with him with which he will also give demonstration flights.

The Bristol Biplanes in India.

IN connection with the Army manoeuvres being carried out at Midnapore, Mr. H. M. Jullerot on the 16th inst., on his Bristol biplane, made a cross-country flight of 15 miles at a height of 1,200 ft. over a dense jungle country. He also made two long flights on the following day, in which he was accompanied by Captain Branker as military observer.

A Wright Flyer for Scouting.

FROM New York it is announced that Mr. Philip Parmelee, one of the Wright pilots, has been told off by the U.S. Minister of War to take observations of the Mexican troops now operating on the frontier, their movements to be communicated to the authorities by means of wireless telegraphy.

Cross-Country Flying in Australia.

TO Mr. Joseph Hammond has fallen the honour of making the first cross-country flight in Australia. On his Bristol biplane he succeeded in flying on Monday from Melbourne to Geelong, a distance of about 40 miles. The following day Mr. Hammond flew back to Melbourne, arriving about mid-day. At both ends of the journey the greatest enthusiasm prevailed. Immediately after erecting the Bristol machine on Saturday last Mr. Hammond indulged in a jaunt of 20 miles.

AIRSHIP NEWS.

Progress with the Naval Airship.

WORK on the naval airship, which has been built at Barrow, has progressed so far that it can be described as only requiring the finishing touches to be complete. On Tuesday of last week the Government Advisory Committee for Aeronautics visited Barrow and inspected the leviathan. The two Wolsley motors were started up and the mechanism operating the rudders and elevating planes, &c., was operated to illustrate their movement. No definite date has been fixed for the commencement of the outdoor trials, except that they will be undertaken practically as soon as the winter weather breaks.

The Transatlantic Dirigible Named.

PRINCESS HENRY OF PRUSSIA at Kiel, on the 15th inst., named the dirigible "Suchard," with which an attempt will shortly be made to cross the Atlantic. A snowstorm prevailed during the day and so it was impossible to carry out any trial trips, but it is hoped these will not long be delayed. After the ceremony, which consisted of breaking a bottle of German champagne against the side of the car, the six men who are to form the crew of the airship were introduced to Prince and Princess Henry. The expedition is to start from the Cape Verde Islands some time during April.

Two New French Military Dirigibles.

THE new dirigible, "Capitaine Marchal," which MM. Lebaudy Frères are presenting to the French War Office to replace the ill-fated "Republique," is now practically completed, and a detachment of men from the Army Balloon Corps at Versailles are at Moisson carrying out the work of inflating the balloon.

Another detachment from the Balloon Corps at Versailles has proceeded to Saint Cyr in order to inflate the new Zodiac dirigible, "Le Temps." The envelope of this dirigible has a capacity of 2,200 cubic metres, and the airship is fitted with two propellers. This dirigible is one of those provided by the fund raised after the disaster to the "Republique," and it is intended to be used as an aerial vedette craft.

Brighton and Aviation.

AS an incentive to making a big event of the arrival of the competitors at this "control" point of the round-England £10,000 Daily Mail prize in July next, no better impression could have been made upon the inhabitants of Brighton than by Mr. Morison's noteworthy achievement. It has also whetted their desires in another direction. They affirm that at Shoreham is to be found the finest venue for the holding of the Gordon-Bennett Aviation Cup contest this year.

THE DAVIDSON GYROPTER.

PROGRESS continues to be made in the construction of the Davidson gyropter, which huge machine of the helicopter species is, as our readers know, being constructed at Amerden Bank, near Taplow, by the side of the Thames. Since we last wrote on the subject in *FLIGHT* of November 5th, 1910, Mr. Davidson and his assistants have completed the two umbrella-like lifters and erected them between the cantilever latticework wooden girders that support them on either side of the body of the machine. They have been mounted on ball-bearings, and, large as they are, turn freely on the least pressure of the hand. The lower point of support of each axis is carried on a curved rail fitted with a sliding block attached to a screw mechanism, whereby the inclination of the axis can be varied a few degrees from the vertical in order to produce a horizontal component out of the lift, which is to be employed as the source of propulsion, assuming that the machine flies. Some further progress has also been made with the woodwork generally, and in its shed the machine is a veritable forest of timber, all very beautifully put together and finished, for whatever may be the differences of personal opinion on the principle of this apparatus, all will probably agree that the workmanship is first-class.

One of the two small Stanley steam engines that are to constitute the full power-plant has also been installed in the engine-room and the transmission shafting to one of the lifters is erected. The final drive is through Humphris gearing, a special form of toothed mechanism that was introduced some little while ago as an alternative to the orthodox bevel-drive on motor cars. The 60-h.p. engine and its boiler, so far from being an outstanding feature of the machine, are really so insignificant in size as to be almost overlooked, and an engineer might be excused for supposing at first sight that the installation in question merely constituted a donkey-pump for some main plant to be erected later. On this matter of the power supplied and the adequacy

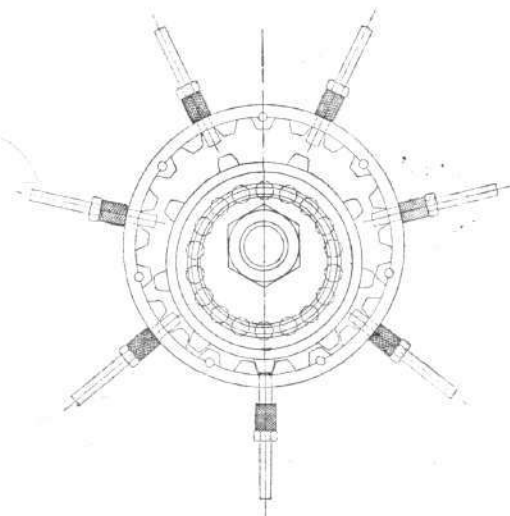
thereof we have already had something to say in a previous article. As our readers may remember, we have expressed the opinion that it is not anything like sufficient, from purely theoretical considerations, but Mr. Davidson is convinced, from some of his previous experiments, that he has power enough, and it is, after all, his machine.

Needless to say, the construction of an apparatus of this magnitude is an exceedingly costly affair, and Mr. Davidson is still open to admit others to a financial interest in it. On this side of the question we have also had our say in a former article, and as it is one on which we do not wish to be misunderstood, we will take this opportunity of reiterating our position. There are, as we know from much of our correspondence, very many enthusiasts who favour the idea of the direct-lifting machine but have made little or no personal effort to give practical expression to their views, although they are always urging others to do so. Private experiments cost money, and a great deal of money too, if they are carried out on a large scale. Now we take it that these advocates of the helicopter are sufficiently open-minded to wish to have the fundamental principle of direct-lift and its efficiency tried out and decided once and for all, and it seems to us that the Davidson gyropter, or at any rate that part of it relating to the lifters and the structure by which they are supported, affords what is probably the cheapest opportunity of obtaining something like definite information on this point, and on a scale large enough to determine the advisability of proceeding with the helicopter principle in practice or dropping it altogether. For that reason, and for that reason only, we depart from usual custom in drawing attention to the financial aspect of this particular situation. Further than that we have nothing to say, and in any case we would certainly suggest that anyone who is the least interested should go down to Amerden Bank and see the machine for themselves. Mr. Davidson is always at home on Sundays.



THE WEBB-PEET VALVE-GEAR FOR ROTARY ENGINES.

An interesting mechanism, designed for the purpose of operating the valve-gears of rotary engines, is illustrated in the accompanying drawing, which has been sent to us by Messrs. Webb, Peet and Co., of Gloucester, who took out the patent for the device in conjunction with Mr. Bateman-Scott.

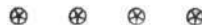


The working of the mechanism is thus described by the inventors:—

This invention has for its object to provide a method of operating the tappet-rods of a four-cycle internal-combustion

engine directly from a single cam on the main-shaft without the employment of two-to-one gears, or of followers to neutralise the side-thrust given by the cams to the tappet-rods, and in carrying it into effect we provide a ball-journal bearing, the inner race of which is eccentric to the outer and secured to the stationary engine-shaft. Around the periphery of the outer ball-race we arrange a number of teeth equally spaced, engaging with an internal-toothed wheel having twice the number of teeth, plus three, and we secure this wheel concentric to the crank-case. When the motor is rotated, the inner toothed ring is swept around within the outer internal-toothed ring, skipping by three teeth at each revolution of the engine and so making a contact of an inner ring gear-tooth with a given exhaust tappet-rod at every other revolution. The order of firing is 1, 3, 5, 7, 2, 4, 6, 1, and so on so as to obtain an equal firing balance during two complete revolutions.

Almost any number of cylinders may be used, the number of teeth varying according to the number of cylinders employed.



THE SHORT WIRE-STRAINER.

HAVING on several occasions found that wire-strainers have an insufficient hold upon the thread owing to the impossibility of determining how much of the screw still remains in the barrel, Messrs. Short Bros. have brought out the wire-strainer illustrated in the accompanying sketch. In this, the shank of the screw is turned down to a smooth surface, and so long as no screw-thread



appears beyond the barrel it is a sure sign that the fastening is quite safe. Also, of course, this method of construction is scientifically superior to a screw with a plain shank as large as the outside of the thread, for the effective section of the steel is limited by the diameter at the bottom of the thread, and it therefore saves material without introducing weakness to turn down the shank in this way. Messrs. Short Bros. are now in a position to supply these wire-strainers to those who may require them.

CORRESPONDENCE.

* * The name and address of the writer (not necessarily for publication) MUST in all cases accompany letters intended for insertion, or containing queries.

Correspondents communicating with regard to letters which they have read in **FLIGHT**, would much facilitate ready reference by quoting the number of each such letter.

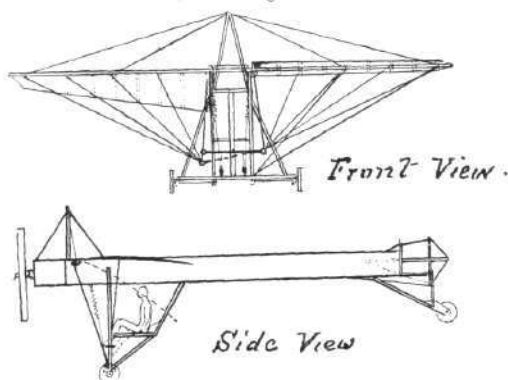
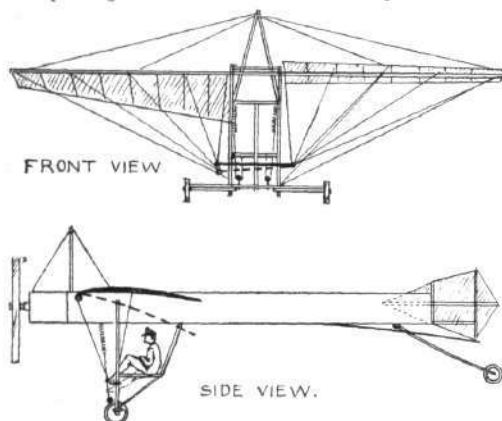
NOTE.—Owing to the great mass of valuable and interesting correspondence which we receive, immediate publication is impossible, but each letter will appear practically in sequence and at the earliest possible moment.

The Young Machine.

[1077] I have lately had made a model of a biplane to illustrate a form of construction which I believe has many advantages over the usual style of aeroplane with its rigid planes. In this instance the planes are pivoted to fixed bars, corresponding to the bones of a bird's wing. The silk is

down the two central ribs (as shown in photo No. 2) to a steep angle to be employed either in rising or checking speed when alighting. An arrangement could be made by which with his feet the pilot can likewise depress the two centre ribs of the lower plane. For turning, a wheel moving on a vertical axis is provided, which moves the rudder, while at the same time cords from the lever travel to the farther end of the plane where they are connected with the outer ribs, depressing the one or the other of them as the lever is moved to one side or the other, thus producing the necessary warping effect. No. 1 photo shows the planes at rest, No. 2 when in flight and lifted into position by the wind, excepting that the two centre ribs of the upper plane are shown depressed by the pilot.

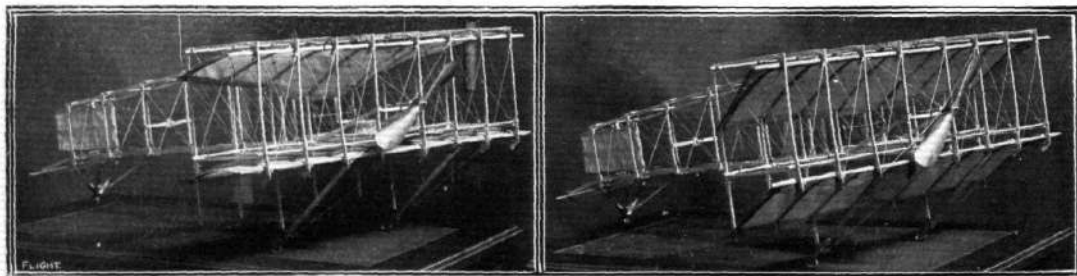
I have also lately designed a monoplane embodying the same principle, and enclose herewith two diagrammatic sketches of the same; one being a front view and the other



wrapped round these bars, forming a continuous hinge, but opposite the ends of the ribs stout material is used on which reliance is placed. The ribs are controlled by light springs which tend to maintain the planes at an angle somewhat steep as regards the horizontal. When traveling, the pressure of the air raises the rear edges of the planes to their highest point, where the ribs rest against stops which can be fixed in such a position as to give that setting most economical for the planes, as may be found by experiment. The principal object of thus pivoting the front edge of the planes is to avoid the disastrous consequences likely to result from the impinging of an eddy of wind on the upper side of the plane, so likely to happen when it is not far from the ground and in the neighbourhood of trees, buildings or hills. With this arrangement the wind must always meet the underside of the planes. In the model, of which I enclose you photographs, the upper plane is controlled by springs of elastic rubber and the lower plane by steel wire springs. The ends of the ribs are forked and move between vertical guides forming part of the frame. In these guides are fixed the stops above mentioned. The aviator can control the two central ribs by a lever attached to a spindle bearing two wheels on which are wound cords. He can by these hold

a side view. In this case the main longitudinal ribs of the planes, situated near the centre of pressure, are connected with a series of wires, which meet at the end of a metal yoke, shown by a broad black line. This yoke moves between three vertical guides. In the centre guide is fixed a stop (adjustable) against which the yoke rests when the machine is in full flight. Attached to the yoke are cords passing over pulleys fixed to the bottom of the frame and controlled by spiral springs, which tend to pull the yoke downwards and carry with it the planes when the pressure of the wind is relieved from their undersides. The aviator sits entirely below the planes and has a full view of the ground. His feet can rest on the yoke, and, by applying his weight, he can alter the angle of the planes when alighting or ascending. When turning he depresses one side of the yoke, as shown dotted in the left-hand side of the front view here given. The front rib or wing bone is stayed in every direction. Some of the stays are shown in the sketches, those on the left-hand side of front view being omitted to show clearly the plane that is being warped. The motor would be carried in the trough above the aviator in a forward position.

I believe that, having this safety arrangement, the aviator may be warranted in allowing his planes to lie at a much



The Young machine, showing the planes at rest and when flying.

flatter angle with the horizontal than would be prudent with rigid planes, thus obtaining higher speeds and, probably, increased supporting power.

E. W. YOUNG.

All-British Encouragement.

[1078] With reference to your article in *FLIGHT*, December 17th, may I draw your attention to the passage in *Blackwood's Magazine* for February under the name of T. F. Farman:—

"Those aerial voyages . . . demonstrated the necessity for at once providing landing places and shelter for aerial craft in the vicinity of large towns . . . An association has been constituted . . . to encourage provincial aero clubs, private industry and municipalities to make preparations to receive aerial visitors. What is required at the gate of every large town is a convenient landing place with adjoining sheds for the touring aeroplanes."

"In a comparatively short time aerial ports may become a paying concern because the aerial craft will be called on to pay dues in the same way as ships entering harbours—." Such harbours might be initiated with the *Daily Mail* prize tour, and assistance towards this end by the national bodies is to be expected. Will you help, sir, by giving it publicity.

MERVYN O'GORMAN.

Pendulum Stability.

[1079] With regard to the letter of Mr. Buckwell which appears in your last issue, he makes a number of sweeping statements without giving his authority, and which statements I have every reason to believe are inconsistent with facts. He says that Planes Limited's invention was "discovered and found wanting by Blériot, Saulnier and Farman (monoplane) long before this firm was heard of." This may or may not be true, but as Planes Limited's patents date back to 1906, and the Company was not formed until a year ago, his statement, even if it be true, is entirely beside the point, and as one statement is just as good as another until it is refuted, I state that to the best of my knowledge and belief, after very carefully watching the matter for several years as the Patent Agent of Planes Limited and of their predecessors, none of these eminent firms mentioned have ever published any experiments on the subject nor has there appeared anything in the flight journals or any of the shows which would indicate that any of these three firms have made a flying machine with the weight of the man, engine and stores suspended flexibly from the planes and have "found it wanting." If there is any truth in his assertion, I think he is bound to produce his evidence, otherwise his statements must be taken as random ones not based on fact. It is easy to say that machines of this type were notoriously difficult to handle, but Planes Limited's machine is the only aeroplane that in the whole history of the art has been able to fly for a mile or thereabouts without the aviator once touching the handle, and unless the machine had not been wonderfully automatically balanced by its peculiar construction and remarkably easy to handle, this could not be done; yet we have the witness of Mr. Fenwick, the Royal Aero Club pilot, and of others watching him as far as they could, that this feat was accomplished. I am aware that among the patents there are many instances of attempts at designing machines on the pendulum principle, which have all proved abortive through obvious scientific faults in their construction and design, but this does not detract in the slightest from the legal novelty and patentability of a successful invention such as Planes Limited's patent self-balancing aeroplane has proved to be, by many scores of miles of successful flight.

W. P. THOMPSON, M.I.Mech.E.,
Chartered Patent Agent.

Liverpool.

Aircraft Instead of Airships.

[1080] The title of my paper to be read at 8 o'clock on March 8th, before the Inst. Autom. Engrs., at Storey's Gate, S.W., should be altered from "Problems Relating to Airships," to "Problems Relating to Aircraft," for the former word has now become recognised as applying solely to dirigibles, and the larger portion of the lecture deals with aeroplanes and their stability.

MERVYN O'GORMAN.

MODELS.

Model Monoplane.

[1081] I enclose a photo of a monoplane that I have built to my own design, and hope that it may be of some interest to your readers. It is built of hickory, but has a propeller of Brazil wood.



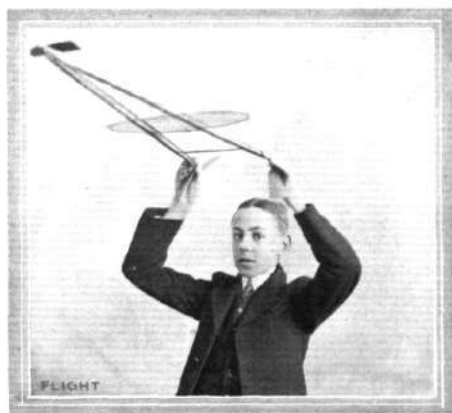
I finished the model last August, and feel quite confident that if it had an engine it would be a success. The span is 9 ft. 8 ins., and the length 7 ft. If any of your readers would like to see it I should be pleased to show it to them.

Haylings Road, Leiston, Suffolk.

J. BOWMAN.

School Aero Clubs and their Models.

[1082] I enclose a photograph of the most efficient model aeroplane we have produced up to the present. The "Mann" monoplane, No. 25, has held the air for 55 secs., covering in that time a distance of close on a quarter of a mile. This latter was very carefully measured and several



observers estimated the distance as being considerably more. Another flight was actually well over the quarter mile according to our measurements.

Permit me to direct your attention to the spread of the school aero club movement in France. The article that I contributed to *FLIGHT* some time since was favourably reviewed by M. Gach in *L'Aero*, and M. Gach informs me that in consequence of this review numerous French schools are forming "aero-clubs scolaires." The current number of *La Feuille Sportive* contains an article on school aero clubs in which I am referred to as "le secrétaire général de la Fédération Britannique des Aero Clubs Scolaires, une Fédération puissante d'où sortiront demain les triomphateurs de l'air." There is, as far as I know, no such organisation as "The British Federation of School Aero Clubs," and I can only put down the "from which go forth to-morrow the conquerors of the air" to Gallic sarcasm. Still, I fear that

"la Federation Française des Aero Clubs Scolaires" will soon become an accomplished fact. But however, perhaps it may wake up our English school authorities.
 Surbiton. ROBERT P. GRIMMER.

Tails on Models.

[1083] With regard to experiments concerning the effect of a movable tail in controlling the direction of flight, I find that, with a small paper glider fitted with a tail that could be twisted bodily, the tail, when twisted, always assumed a horizontal position in flight, canting the model and causing it to make a circular glide. I do not suppose this to be an original discovery, nor do I think it to be of any practical use, but it supports my opinion that gulls make considerable use of their tails when flying.

Liverpool.

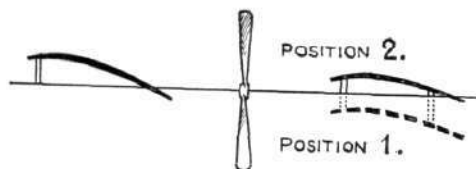
S. P. ELLIOTT.

Model Tandem Monoplane Queries.

[1084] I intend building a model tandem monoplane and shall be much obliged if you can enlighten me on the following points:—

1. If the rear plane is placed in position 1, will the slip stream from propellers exert a downward force, lift, or have no effect at all?

2. If the rear plane is placed in position 2, will it rise higher



than the front, owing to the slip stream from the propellers, and so cause the machine to dive earthwards; if so can this be remedied by increasing the angle of incidence of front plane?

3. Which of the two positions do you consider will prove the most efficient?

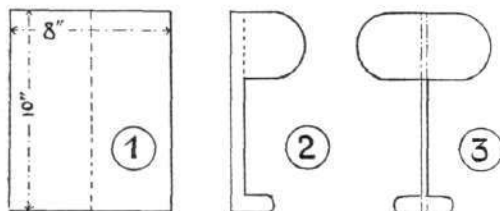
S. Norwood.

JOHN R. WARIN.

[The lift of the rear plane depends on its angle, not, within small limits, on its position as shown by sketch. It will fly in the slip stream in any case and its angle should be less than that of the front plane.—ED.]

Paper Glider.

[1085] I have invented a new paper glider with which I have had very successful results, both in winds and indoors. First take a piece of paper about 10 ins. long by 8 ins. wide and fold down middle as in diagram No. 1; then draw a



design such as shown in diagram No. 2 on paper. Cut this out and fold down to the dotted line as shown in Fig. 2, then raise the wings to a convenient angle and the glider is completed. The glider goes tail or small plane first, and may be elevated by means of the tail.

London, W.

H. R.

Model Farman Tail.

[1086] Could any reader through your valuable paper explain with an illustration how it would be best to join the tail of a model Henry Farman biplane to the rest of the machine, so that the rudders and tail are movable.

Highgate.

E. CASLON.

RECORDS.

Duration.—Henry Farman (France), at Etampes, on a Henry Farman biplane fitted with a Gnome motor: 8 hrs. 12 mins., covering 463 kiloms. (288½ miles).

Distance.—Maurice Tabuteau (France), at Buc, on a Maurice Farman biplane, 584·935 kiloms. (365 miles) in 7h. 48m. 31½s.

Altitude.—G. Legagneux, at Pau, on a Blériot monoplane, fitted with Gnome motor, 3,200 metres (10,746 ft.).

Speed.—A. Leblanc (France), on a Blériot monoplane, fitted with Gnome motor, 5 kiloms. in 2 mins. 45½ secs. = 108 k.p.h. (67·5 m.p.h.).

Aeronautical Patents Published.

Applied for in 1910.

Published February 23rd, 1911.

- 9,495. R. ESNAULT-PELTERIE. Aeroplanes.
- 11,334. H. S. WILDERLOOD. Improving stability of aeroplanes.
- 14,460. J. RUND. Material for balloon envelopes.
- 20,786. W. E. S. COVNE. Aerial vessels.

Index and Title Page for Vol. II.

THE Index and Title Page for Vol. II, January to December, 1910, of FLIGHT, has now been published. Any reader may obtain one by sending 2d. to the Publishers, 44, St. Martin's Lane, London, W.C. After February 28th, a charge of 6d., post free, will be made.

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DIARY OF COMING EVENTS.

British General Events.

- Mar. 24-April 1. Olympia Aero Show.
- July .. Daily Mail Round England Contest.
- July .. Gordon-Bennett Aviation Cup Contest.
- Oct. 31 .. Close of British Michelin Cup.

British Clubs and Associations.

- Mar. 8 .. "Some Lessons of 1910." By Major J. N. C. Kennedy at Caxton House (A.A. and M.U.).
- Mar. 8 .. "Problems Relating to Aircraft." By Mervyn O'Gorman at Institute Automobile Engineers.
- Mar. 8 .. "Vertical Flight and Reduced H.P." By Joseph Clarkson at Merchant Venturers' Technical College, Bristol.
- Mar. 10 .. Lecture by Mr. S. F. Cody (Midland Aero C.).

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